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PCT/FR2004/000086 Etienne-Emile BAULIEU et al. Attorney Docket No. 03715.0148-00000

AMENDMENTS UNDER PCT ARTICLE 34
(ARTICLE 34 AMENDMENTS)

International Application No. PCT/FR2004/000086

**MAILSTOP PCT** 

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

REQUEST FOR SUBSTITUTION OF REPLACEMENT SHEETS

Please substitute the attached replacement sheets 23-25 of the claims containing an English-language translation of the Article 34 Amendments for sheets 23-25 of the claims in the enclosed English-language translation of the as-filed PCT application. It is respectfully requested that the claims in the substitute sheets be examined during examination of the patent application. Claims 1-12 are currently pending.

Respectfully submitted,

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Dated: July 15, 2005

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EFC/FPD/blc

## Claims

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1. The use of 3-methoxy-pregnenolone or a molecule derived from pregnenolone that contains a 3-methoxy function and is incapable of being converted into a metabolite or ester sulfate of pregnenolone, for the preparation of a drug to treat a degenerative disease of the nervous system, such as a disease chosen from the group comprising Alzheimer's disease, Parkinson's disease, age-induced memory loss, memory loss induced by the taking of substances, a traumatic lesion, a cerebral lesion, a lesion of the spinal cord, in particular medullary compression, ischemia, pain, notably neuritic pain, nerve degeneration, and multiple sclerosis, with the aforementioned molecule presenting formula I:

in which:

 $R = CH_3$ 

 $R1 = -CO-; -CH(OH) - or -CH(O-COCH_3) -$ 

 $R2 = H \text{ or } CHCl_2$ ,

 $R3 = H \text{ or } CH_3, \text{ or }$ 

R2 and R3 together form a ring:

- 2. The use according to claim 1, wherein the aforementioned drug also comprises an excipient that makes it possible to formulate the aforementioned molecule derived from pregnenolone to cross the blood-brain barrier.
- 3. The use according to claims 1 or 2, wherein the aforementioned drug is presented in an injectable form.
- 4. The use according to claims 1 or 2, wherein the aforementioned drug is presented in a form allowing it to be taken orally.
- 5. The use according to one of the claims 1 to 4, wherein the aforementioned molecule is 3-methoxy-PREG.
- 6. The use according to one of the claims 1 to 5, wherein the aforementioned molecule is  $3\beta$ -methoxy-pregna-5-ene-20-one-17 $\alpha$ -dichloromethyl.
- 7. The use according to one of the claims 1 to 5, wherein the aforementioned molecule is 3β-methoxy-5α-pregnane-20-one.
- 8. The use according to one of the claims 1 to 7, wherein the aforementioned drug comprises a quantity of 3-methoxy-pregnenolone or of a derived molecule ranging between 50 and 2500 mg.
- 9. 3-methoxy-pregnenolone as a drug.
- 10. A pharmaceutical composition, comprising 3-methoxypregnenolone or a molecule derived from pregnenolone that
  contains a 3-methoxy function of general formula I as an
  active ingredient, and a pharmaceutically acceptable
  excipient.
- 11. An *in vitro* method for increasing the stabilization and/or inducing the polymerization of the microtubules in a cell, comprising the step of exposing the aforementioned cell to the presence of 3-methoxy-pregnenolone at a concentration of approximately 0.5 to 50  $\mu$ M.
- 12. An in vitro method for increasing neuritic sprouting in a cell, comprising the step of exposing the aforementioned

cell to the presence of 3-methoxy-pregnenolone at a concentration of approximately 0.5 to 50  $\mu M$ .